

### **Amendment to the Title**

**Please replace the title of the invention with the following new title:**

**METHOD AND SYSTEM FOR COMPENSATING FOR THERMALLY  
INDUCED MOTION OF PROBE CARDS**

**Please replace the second full paragraph on page 1 (under the heading  
BACKGROUND OF THE INVENTION) with the following paragraph:**

Typically the wafer to be tested is loaded into the tester securing it to a movable chuck. During the testing process, the chuck moves the wafer into electrical ~~contact~~ contact with the probe card. This contact occurs between a plurality of electrical contacts on the probe card, typically in the form of microsprings, and plurality of discrete connection pads (bond pads) on the dies. Several different types of electrical contacts are known and used on probe cards, including without limitation needle contacts, cobra-style contacts, spring contacts, and the like. In this manner, the semiconductor dies can be tested and exercised, prior to singulating the dies from the wafer.

**Please replace the second full paragraph on page 11 with the following paragraph:**

Energy transmissive devices 470, 475 which are thermal control elements may be utilized to compensate for thermally induced motion of the probe card 110 in several ways. For example, the temperature control devices may be operated continually at the ambient temperature of the tester or at some other preselected temperature. This would tend to drive



the probe card 110 to a uniform temperature regardless of the temperature of the wafer 140 and thereby prevent deformation of the probe card 110. Alternatively, the temperature control elements 470, 475 may incorporate a temperature sensing element (~~not shown~~)490,495, respectively. By sensing the temperature of the two sides 112, 114 of the probe card, the temperature control elements 470, 475 may be directed to apply or remove heat as required to compensate for any thermal gradient developing within the probe card 110. It is understood that the control methods described hereinabove while making reference to an example of the present invention incorporating two temperature control elements 470, 475 are equally applicable to alternate examples employing a single temperature control device or a plurality of control devices.

**Please replace the first full paragraph on page 16 with the following paragraph:**

The actual distance between the probe card 110 and the wafer 140 may be monitored by any suitable means. Once such means includes monitoring the pressure exerted on the probe elements 130 by the bond pads 145. Changes in this pressure can be monitored and a signal relayed to the control system for the table actuator to order a corresponding corrective movement of the wafer 140. This is but one specific example of a means for monitoring the distance between the wafer 140 and the probe card 110. Other means for monitoring this distance such as the use of lasers, including proximity sensors, capacitive proximity sensors, or cameras are also contemplated by the present invention. Such sensors may be a part of the tester or alternatively may be incorporated in the probe card or the prober.